

NCDOT Transformation Update for 21st Century Transportation Committee



Presented by
Roberto Canales

March 5, 2008

NCDOT Transformation Update

- Transformation Approach – Roberto Canales, PE
- Key Transformation Initiatives – Roberto Canales, PE
- Strategic Direction – Mark Tyler, PMP
- Planning and Prioritization – Joey Hopkins, PE
- Program and Project Delivery – Terry Gibson, PE
- Performance and Accountability – Victor Barbour, PE
- Improved Human Resources – Anthony Roper, PE
- Closing & Open Discussion – Roberto Canales, PE

NCDOT Transformation Approach

- McKinsey Diagnostic identified key transformation initiatives
- McKinsey trained NCDOT TMT staff
- Leveraged Proven Management Practices
 - General Electric
 - SAS
 - Office of State Personnel
 - UNC-Healthcare
 - Other State DOT's
 - Other NC State Agencies
- In Depth Analysis: Workstreams
- Engaged staff across organization
- Outreach to partners
 - MPO's
 - League of Municipalities
 - Association of County Commissioners
 - Industry Partners (AGC, ACEC)
 - FHWA

Key Transformation Initiatives

Strategic Direction

Planning and Prioritization

Program and Project Delivery

Performance and Accountability

Improved Human Resource Mgt

Alignment of Strategic Direction with New Mission and Goals

- ✓ New Mission, Goals and Values
- ✓ Strategic leadership roles identified
- ✓ Completed comprehensive organizational assessment of all business units

Mission, Goals and Values

NCDOT

OUR MISSION

*Connecting people and places
in North Carolina – safely and
efficiently, with accountability
and environmental sensitivity*

OUR GOALS

- Make our transportation network **safer**
- Make our transportation network move people and goods more **efficiently**
- Make our infrastructure **last longer**
- Make our organization a place that **works well**
- Make our organization **a great place to work**



OUR VALUES

- **SAFETY** - We strive for safety throughout our transportation networks as well as in our work and our daily lives.
- **CUSTOMER SERVICE** - We respond to our customers, both internal and external, in an open, professional and timely manner.
- **INTEGRITY** - We earn and maintain trust by responsibly managing the states assets, acting ethically, and holding ourselves accountable for our actions.
- **DIVERSITY** - We draw strength from our differences and work together in a spirit of teamwork and mutual respect.
- **QUALITY** - We pursue excellence in delivering our projects, programs, services and initiatives.

Strategic Leadership Roles Identified

- ✓ Top 150 Leadership roles identified
 - **40 Leadership**
 - **110 Subordinates**
- ✓ Chief Operating Officer
- ✓ Strategic Planning Director
- ✓ Inspector General
- ✓ Bridge Program Manager
- ✓ Talent (HR) Strategist

Status

- Existing roles and positions
 - **Leadership planning**
 - **Accountability**
- Chief Deputy Secretary
- Position approved and filled
- Position approved
- Bridge Maint. role being modified
- Position recommended, under consideration

Business Unit Assessment

- ✓ Completed Comprehensive Organizational Assessment of All Business Units (BU):
 - Mission
 - End Products
 - Cost to Produce End Products
 - Efficiencies

Status

- **Deep Dive**
 - Issues cross multiple BU
 - Facilitated by the TMT staff
 - TIP Delivery, Bridge, Mobility
- **Internal Efficiency**
 - Internal efficiencies proposed by BU
 - Facilitated by the BU itself
 - TMT member assigned to ensure completion
- **Training Opportunity**
 - Budget Accountability training
 - Project Management training
 - Managerial/Leadership training
- **Procedural Changes**
 - Suggestions for procedural changes

Business Unit Assessment

“Deep Dive”

Deep Dive

✓ Office of Inspector General

Status

- **NC HB Bill 1401, Internal Audit Act**
 - Established the Council of Internal Auditing
 - Requires the appointment of Audit Director that will report to agency head
- **NC HB 1551, State Government Accountability and Internal Control Act**
 - Establishes that the management of each agency bears full responsibility for establishing and maintaining proper internal controls
- **2006 Office of State Auditor Performance Report**
 - Significant Difficulties Completing Audits and Reports
 - Audit Plan not Risk based
 - Lack of Compliance with Peer Review recommendations
- **Significant Organization Restructuring**

Business Unit Assessment

“Deep Dive”

Deep Dive

- ✓ Information Technology Assessment

Status

- Priorities / Governance
 - Aligned with Business Strategy
 - Technology Investment Decision
 - Project Monitoring & Oversight
- Data Integration
 - Improved Management Reporting
- Communication
- Technology Procurement
- Accountability
- Organization Structure

Strategic Direction

Business Unit Assessment

“Deep Dive”

Other “Deep Dive”

- ✓ **Bridge Program**
- ✓ **TIP Program**
- ✓ **Mobility Program**
- ✓ **Program/Project Delivery**
- ✓ **Transportation Planning**

Diagnostic Findings

- Lack of formalized statewide, department-wide, long-term thinking, planning, and executing
- Little relationship exists between Department goals and staff level job duties and performance
- Too many, poorly selected priorities dilute focus, overtax resources, and slow delivery

Accomplishment

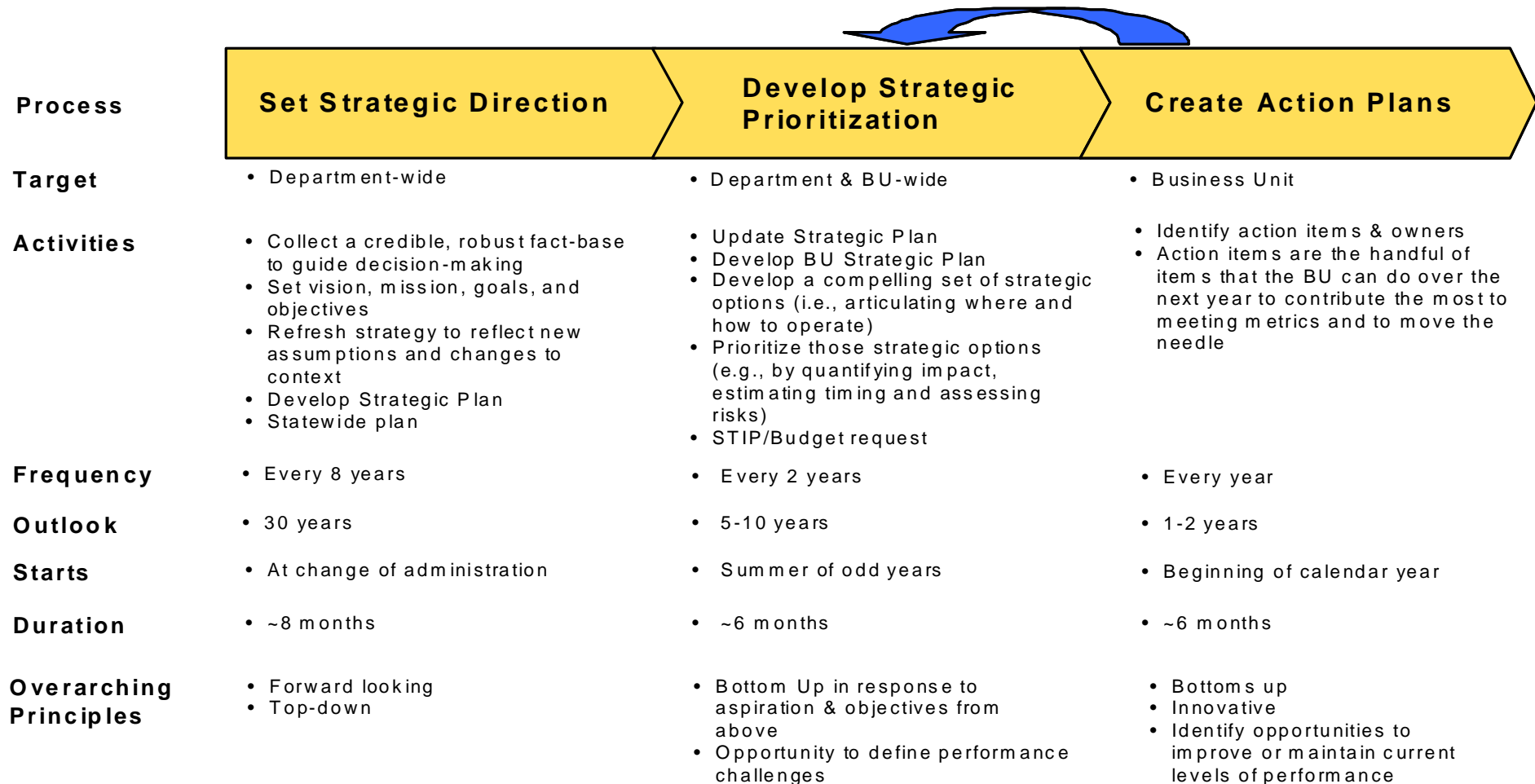
- ✓ Developed framework for strategic planning that aligns with mission and goals and is renewable
- ✓ Established new prioritization approach based on strategic priorities
- ✓ Introduced departmental leaders and stakeholders to conceptual strategic planning and prioritization process

Key Deliverables

- Further Development of Strategic Planning and Prioritization Processes
- Continued Communication of Strategic Planning and Prioritization Processes to Key Stakeholders
- Continue Pilot of Action Planning Process
- Pilot Strategic Planning Process for Business Units

NCDOT'S Strategic Planning Design Principles

Monitor, Evaluate and Adjust Using Performance Metrics



Steps in Strategic Planning Process

Strategic Direction **8 year**

- Assess Performance and Current and Future Operating Environment
- Develop Aspirations and Initiatives
- Gather Stakeholder Input
- Revisit Vision, Mission, Goals, Objectives, and Targets
- Update Long-Range Statewide Multimodal Transportation Plan

Strategic Prioritization **2 year**

- Assess Performance and Current and Future Operating Environment
- Identify Needs (Business Unit and Transportation Infrastructure)
- Rank Needs (Projects, Services, Programs, and Initiatives) in Priority Order by Category
- **Consolidate, Evaluate, and Finalize Priorities (Unrestricted)**
- **Balance Funding with Priorities (Restricted)**
- **Finalize Budget Request and Draft and Final STIP**

Action Plan **1 year**

- Review and Evaluate Performance
- Develop Draft Action Plan
- Finalize Action Plan and Launch
- Monitor Progress

Accomplishments

- ✓ Created Strategic Planning Office (SPOT)
- ✓ Hired Strategic Planning Director

Primary Functions

- Drive planning process
- Provide analysis of external environment and internal capabilities
- Provide information and recommendations on DOT priorities
- Collect, maintain, update and benchmark external environment data and best practices

Diagnostic Findings

- Project design and delivery processes have been slowed by a lack of prioritization, accountability and coordination
- Organizational structure “silos” some of the key processes
- Internal and external communication systems have not been sufficiently proactive
- Budget resources may not have been adequately allocated to be effective

Develop more efficient and effective business processes

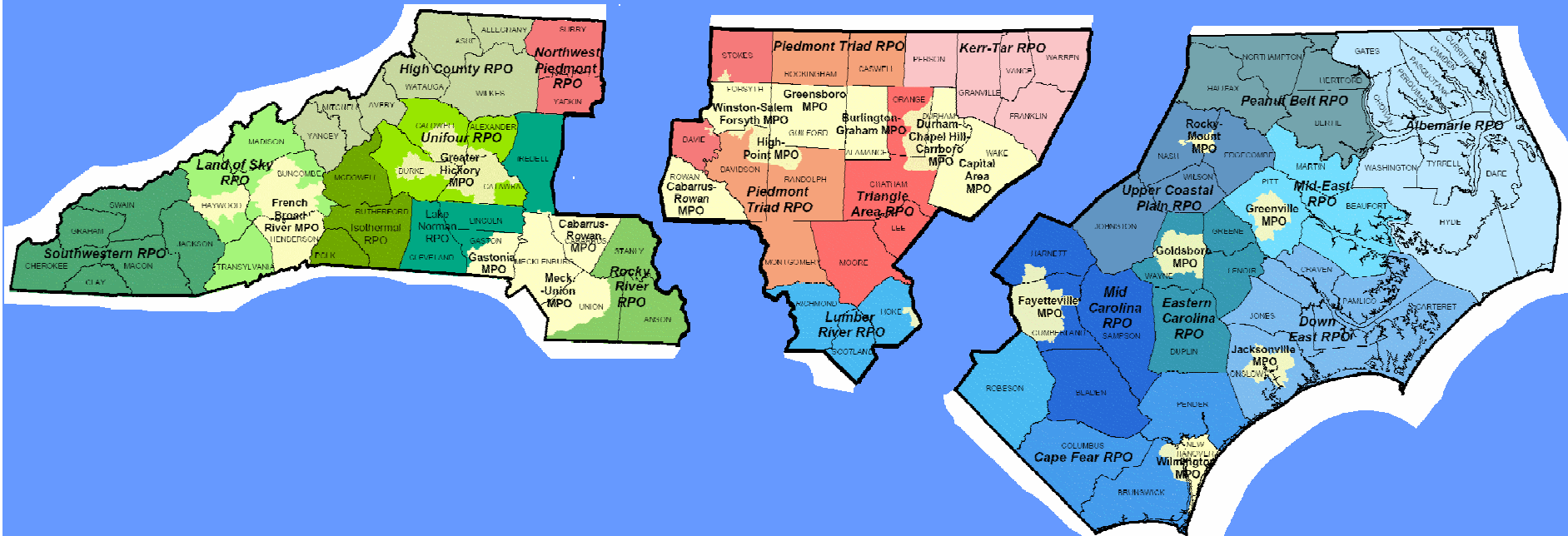
- Bridge Program
- TIP Program
- Mobility Program
- Program / Project Delivery
- Transportation Planning

- **Bridge Program Efficiency (in progress)**
 - Cut time by Two Years
 - Instituted Regional Teams
 - Developed on-site Scoping
 - Standard Design
 - Group Lettings
 - All resulting in Cost and Time Savings
- **TIP Projects**
 - Regionalization of Pre-Construction Functions to create teams
 - Piloting New Project Delivery Models on Select TIP Projects
 - Developing a realistic two-tier TIP

Program & Project Delivery

Program & Project Delivery

Region	Western	Central	Eastern
Division	10,11,12,13,14	5,7,8,9	1,2,3,4,6
STIP Staff	Van Argabright	Mike Stanley	Ray McIntyre
PDEA Staff	Teresa Hart	Eric Midkiff	Rob Hanson
Roadway Staff	Scott Blevins	Ron Allen	Dewayne Sykes



- **Piloting New Project Delivery Models**
 - Project Executives
 - Project Executives with formal teams
 - Tri-technical Managers
- **Develop two tier TIP – Developmental / Delivery**
 - Provides a measurable TIP with realistic delivery dates
 - Establishes delivery expectations and budget constraints
 - Sets achievable project expectations

- **Mobility Program**
 - Establishing Standard Measures of Congestion to Allow Prioritization of Mobility Needs
 - Identifying Alternative Multi-modal Approaches to Manage Congestion
 - Exploring Alternative Approaches to Planning for Future and Managing Existing Mobility Needs
- **Program Project Delivery**
- **Transportation Planning**

Diagnostic Findings

- ✓ **There has been some implementation of performance management measures within business units, but those efforts are not explicitly linked to NCDOT nor other business unit priorities**
- ✓ **NCDOT's ad hoc nature of existing performance indicators sometimes leads to conflicting needs between units**

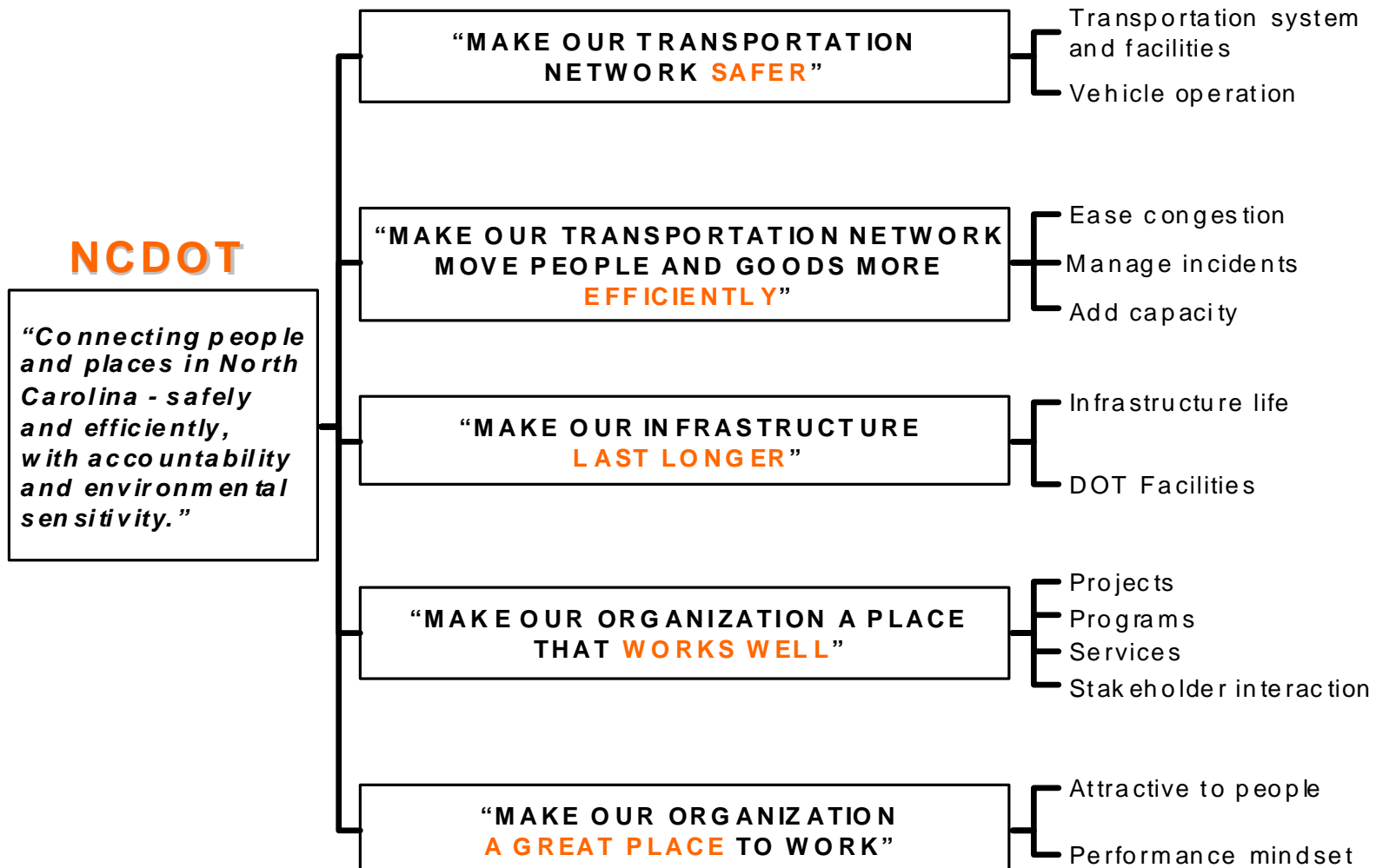
Accomplishments to Date

- ✓ Developed NCDOT's **Value Tree** based on department's new mission and goals
- ✓ Developed **Key Performance Indicators** that align with new mission and goals
- ✓ Developed Performance **Metrics** for department leaders that align with new mission and goals
- ✓ Implemented preliminary public facing Executive Dashboard aligned with our mission and goals

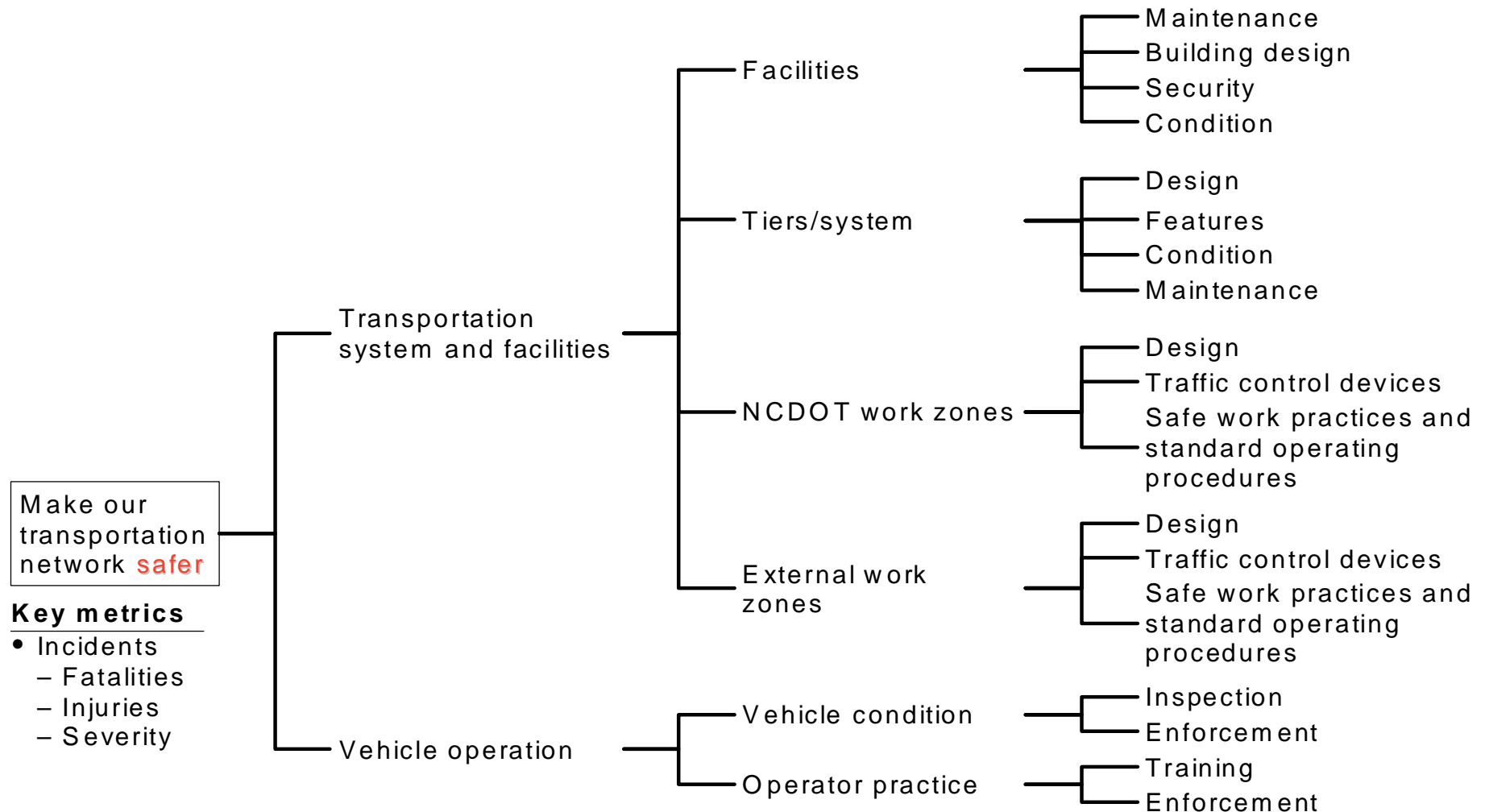
Key Deliverables - Next 12 Months

- Complete development of performance targets for all goals
- Develop performance metrics for all NCDOT employees
- Educate all employees on new performance culture
- Develop a robust Executive Dashboard that will show progress towards accomplishing performance outcomes

NCDOT HIGH-LEVEL VALUE TREE



MAKE OUR TRANSPORTATION NETWORK SAFER



Performance & Accountability

NCDOT Performance Dashboard

<http://www.ncdot.org/>

The screenshot shows the NCDOT website homepage. At the top is the NCDOT logo and navigation links: About, Careers, Contact, News, and a Search bar. A vertical menu on the left lists links: Doing Business with NCDOT, Maps & Publications, Programs, Projects & Studies, and Travel Information. The main banner features the 'NCDOT Organizational Performance Dashboard' with a clock icon and the tagline 'Connecting people and places in North Carolina.' Below the banner, there are five columns of links: 'What's New' (Mission & Goals, NCDOT McKinsey Report, NCDOT Ethics Policy), 'Divisions' (Aviation, Bicycle & Pedestrian, DMV, Ferry, Highways, Public Transportation, Rail), 'Business Resources' (Approved Product List, Directory of Trans. Firms, Electronic Forms, Project Letting, Order Plans, Order Publications), 'Commuters & Travelers' (Construction Projects, Driver License, HOV Lanes, Road Conditions, Traffic Cameras), and 'Find Info Near You' (a map of North Carolina and a 'Select-A-County' dropdown). A red callout box with an arrow points to the 'NCDOT DASHBOARD' clock icon in the 'What's New' section.

Click this icon to access the NCDOT Dashboard

What's New

- [Mission & Goals](#)
- [NCDOT McKinsey Report](#)
- [NCDOT Ethics Policy](#)

Divisions

- [Aviation](#)
- [Bicycle & Pedestrian](#)
- [DMV](#)
- [Ferry](#)
- [Highways](#)
- [Public Transportation](#)
- [Rail](#)

Business Resources

- [Approved Product List](#)
- [Directory of Trans. Firms](#)
- [Electronic Forms](#)
- [Project Letting](#)
- [Order Plans](#)
- [Order Publications](#)

Commuters & Travelers

- [Construction Projects](#)
- [Driver License](#)
- [HOV Lanes](#)
- [Road Conditions](#)
- [Traffic Cameras](#)

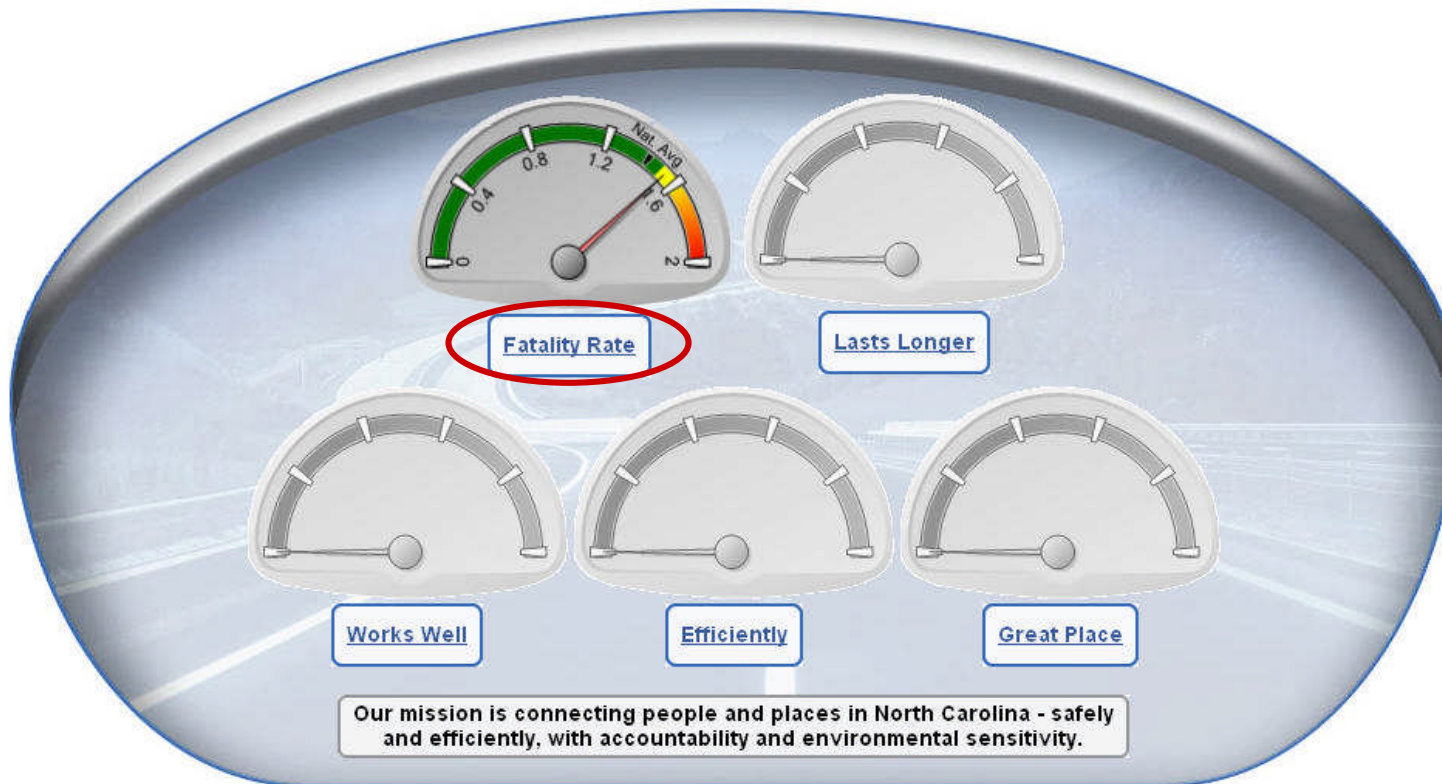
Find Info Near You

Click the map for regional information or

Select-A-County ▾

NCDOT Performance Dashboard

NCDOT Organizational Performance Dashboard



[More information on NCDOT's transformation and organizational performance efforts.](#)

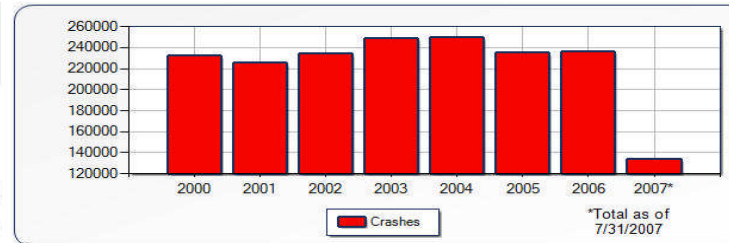
Represents Overall Health of the Organization

Performance & Accountability

Make Our Transportation Network “Safer”

Crash Details statewide

Filter By:
Statewide



Yearly Statistics

	2000	2001	2002	2003	2004	2005	2006	2007*
Crashes	231,647	225,607	234,478	248,564	249,155	234,816	236,326	133,556
Fatalities	1,561	1,533	1,577	1,561	1,578	1,550	1,555	936
Injuries	38,464	34,070	33,424	33,337	34,213	32,192	30,766	17,547
VMT (100MVM)	892.46	915.71	936.86	937.63	956.27	1,008.61	1,016.48	610.14
	259.56	246.37	250.28	265.1	260.55	232.81	232.49	218.89
Crash Rate	1.75	1.67	1.68	1.66	1.65	1.54	1.53	1.53
Fatality Rate	43.1	37.21	35.68	35.55	35.78	31.92	30.27	28.76
Injury Rate								

1: VMT=Vehicle Miles Traveled, MVM=Million Vehicle Miles.

* Total Year to Date

Data current as of: 7/31/2007

More information on [how we get these numbers](#).

Performance and Accountability

Performance and Accountability

PERFORMANCE METRICS
FOR N.C. DEPARTMENT OF TRANSPORTATION

WORKING DRAFT 10/23/07

SECRETARY OF TRANSPORTATION

	Metrics	Definition of Measure/Comments
"Make our transportation network safer"	<ul style="list-style-type: none"> Fatalities 	<ul style="list-style-type: none"> % improvement in fatalities compared to national goal of 1.0 fatality per 100 million vehicle miles traveled
"Make our transportation network move people and goods more efficiently"	<ul style="list-style-type: none"> Reliability on the System Strategic Highway Corridors and Regional Tier Routes Transit Service 	<ul style="list-style-type: none"> Average operating speeds on Strategic Highway Corridors (SHC) Travel time reliability - standard deviation of average commuter time in selected urban areas % Decrease in congestion % Increase in frequency of service
"Make our infrastructure last longer"	<ul style="list-style-type: none"> Department Infrastructure Health 	<ul style="list-style-type: none"> Statewide Level of Service scores for facilities (assets) % Increase in value of Department infrastructure
"Make our organization a place that works well"	<ul style="list-style-type: none"> Projects/Programs/Services on Schedule and on Budget Business Development and Outreach Customer Service Fiscal Management 	<ul style="list-style-type: none"> % of projects/programs/service administered, managed and constructed on schedule and on budget (Planned vs. Actual) % of solicitations sent to, % of bids received from, & % of contract dollars awarded to DBEs, MBEs, WBEs, SBEs, and HUBs Customer survey scores (public, partners, etc.) % improvement of existing administrative budget
"Make our organization a great place to work"	<ul style="list-style-type: none"> Employee Safety Employee Satisfaction Recruiting, Developing and Retaining Employees 	<ul style="list-style-type: none"> Number of incidents, lost work days, worker's comp claims Employee satisfaction survey composite score Retention rate of "Top Performers" and/or stabilization rate

Performance and Accountability

Performance and Accountability

DASHBOARD SCORECARD

WORKING DRAFT 10/23/07

STATE HIGHWAY ADMINISTRATOR

Metric	Metric Data	Target	Data Source	Wt (%)
Crash Rates	Crashes per 100 million vehicle miles; this will be compared against a baseline TBD (% improvement)	238-230	Traffic Engineering Branch	5
Reliability of Strategic Highway Corridor System	-Average operating speeds on Strategic Highway Corridors (SHC) -Travel time reliability - Congestion (Level of Service)		Transportation Planning Branch	
Statewide Infrastructure Health	Composite Statewide Rating (Level of Service Rating)	C- to C	Asset Management -Maintenance Condition Reports	30
Programs/Projects/Services on Schedule and on Budget	# of programs/projects/services planned for year divided by # actual completed = % success rate	70-89%	Program Development report from STaRS and / or BW, HiCAMS	35
Business Development and Outreach	% Contract dollars awarded to DBEs, MBEs, WBEs, SBEs, & HUBs	70-89%	SAP	10
Customer Service	Customer Survey Scores	70-89%	TBD	10
Fiscal Management	% Improvement in Administrative Budget	90-95%	TBD	5
Employee Safety	# of reported incidents that cause lost work days and / or worker's comp claims compared to baseline, i.e. previous year(s) reported incidents	6.1-7	Safety & Loss Control	5
Employee Satisfaction	Employee Survey		TBD	
Recruiting, Developing and Retaining Employees	- % retention of employees that continuously meet or exceed expectations on their PDA's - Overall % of employees retained at the end of cycle vs. # of employees at beginning of cycle. (Retirement or positive movement within the Dept. does not negatively affect rating)		TBD	

Performance and Accountability

Performance and Accountability

DASHBOARD SCORECARD

WORKING DRAFT 10/24/07

CHIEF ENGINEER - OPERATIONS

Metric	Metric Data	Target	Data Source	Wt (%)
Crash Rates	<i>Crashes per 100 million vehicle miles; this will be compared against a baseline TBD (% improvement)</i>	238-230	Traffic Engineering Branch	5
Reliability of Strategic Highway Corridor System and Regional Tiers	<i>-Average operating speeds on Strategic Highway Corridors (SHC) -Travel time reliability - Congestion (Level of Service)</i>		Transportation Planning Branch	
Statewide Infrastructure Health	<i>Composite Statewide Rating (Level of Service Rating)</i>	C- to C	Asset Management -Maintenance Condition Reports	35
Programs/Projects/Services on Schedule and on Budget	<i># of programs/projects/services planned for year divided by # actual completed = % success rate</i>	70-89%	Program Development report from STaRS and / or BW, HiCAMS	35
Business Development and Outreach	<i>% Contract dollars awarded to DBE's, MBEs, WBEs, SBEs, & HUBs</i>	70-89%	SAP	10
Customer Service	<i>Customer Survey Scores</i>	90-95%	TBD	5
Fiscal Management	<i>% Improvement in Administrative Budget</i>	90-100%	TBD	5
Employee Safety	<i># of reported incidents that cause lost work days and / or worker's comp claims compared to baseline, i.e. previous year(s) reported incidents</i>	6.1-7.0	Safety & Loss Control	5
Employee Satisfaction	TBD		Employee Survey	
Recruiting, Developing and Retaining Employees	<i>- % retention of employees that continuously meet or exceed expectations on their PDA's - Overall % of employees retained at the end of cycle vs. # of employees at beginning of cycle. (Retirement or positive movement within the Dept. does not negatively affect rating)</i>		TBD	

Performance and Accountability

Performance and Accountability

DASHBOARD SCORECARD

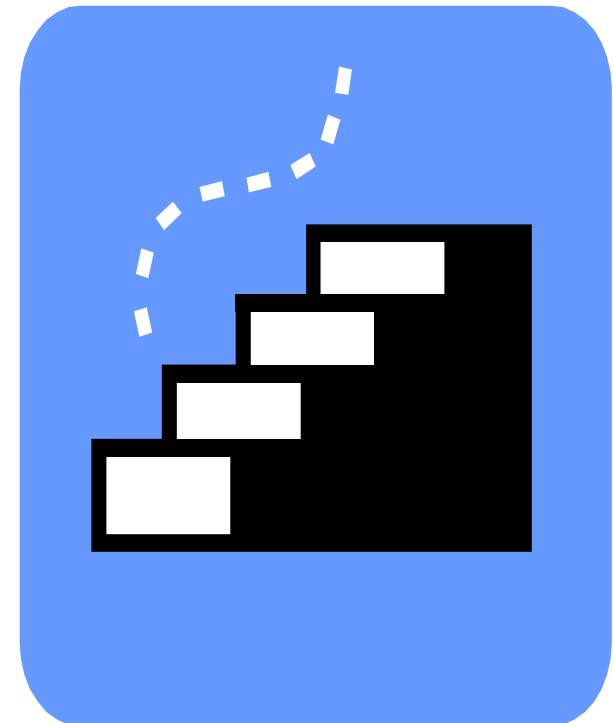
WORKING DRAFT 10-24-07

DIRECTOR OF PRECONSTRUCTION

Metric	Metric Data	Target	Data Source	Wt (%)
Crash Rates	Crashes per 100 million vehicle miles; this will be compared against a baseline TBD (% improvement)	238-230	Traffic Engineering Branch	10
Level of Congestion on Strategic Highway Corridor System (SHC)	Miles of SHC at V/C ratio of 1.2 & above compared to total miles of SHC expresses as percentage		Transportation Planning Branch	
Delivery of Bridge Replacement Program	# of major milestones planned for year divided by # actual met = % success rate (CE, R/W, Let, Const Completed)	70-89%	Program Development report from STaRS and / or BW	15
Projects/Programs/Services on Schedule and on Budget	# of major milestones planned for year divided by # actual met = % success rate (CP's, EA, FONSI, EIS, PH's, R/W, Let, Constructed Completed)	70-89%	Program Development report from STaRS and / or BW	30
Project Scope	Once Cost Estimate Flow Chart and Scope Change Request processes are implemented, a metric needs to be developed to evaluate the performance	70-89%	TBD	15
Business Development and Outreach	% Contract dollars awarded to DBEs, MBEs, WBEs, SBEs, & HUBs	70-89%	SAP	10
Customer Service	Customer satisfaction surveys	70-89%	TBD	10
Fiscal Management	% improvement of existing administrative budget	90-95%	TBD	5
Employee Safety	# of reported incidents that cause lost work days and / or worker's comp claims compared to baseline, i.e previous year(s) reported incidents	6.1-7	Safety & Loss Control	5
Employee Satisfaction	Employee Survey		TBD	
Recruiting, Developing and Retaining Employees	- % retention of employees that continuously meet or exceed expectations on their PDA's - Overall % of employees retained at the end of cycle vs. # of employees at beginning of cycle. (Retirement or positive movement within the Dept. does not negatively affect rating)		TBD	

New Performance Expectations Begin

- Top 150 Managers – April 2008
- All NCDOT Personnel – April 2009



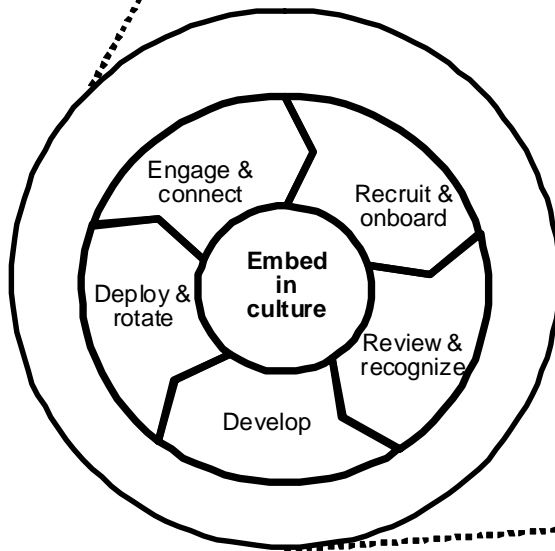
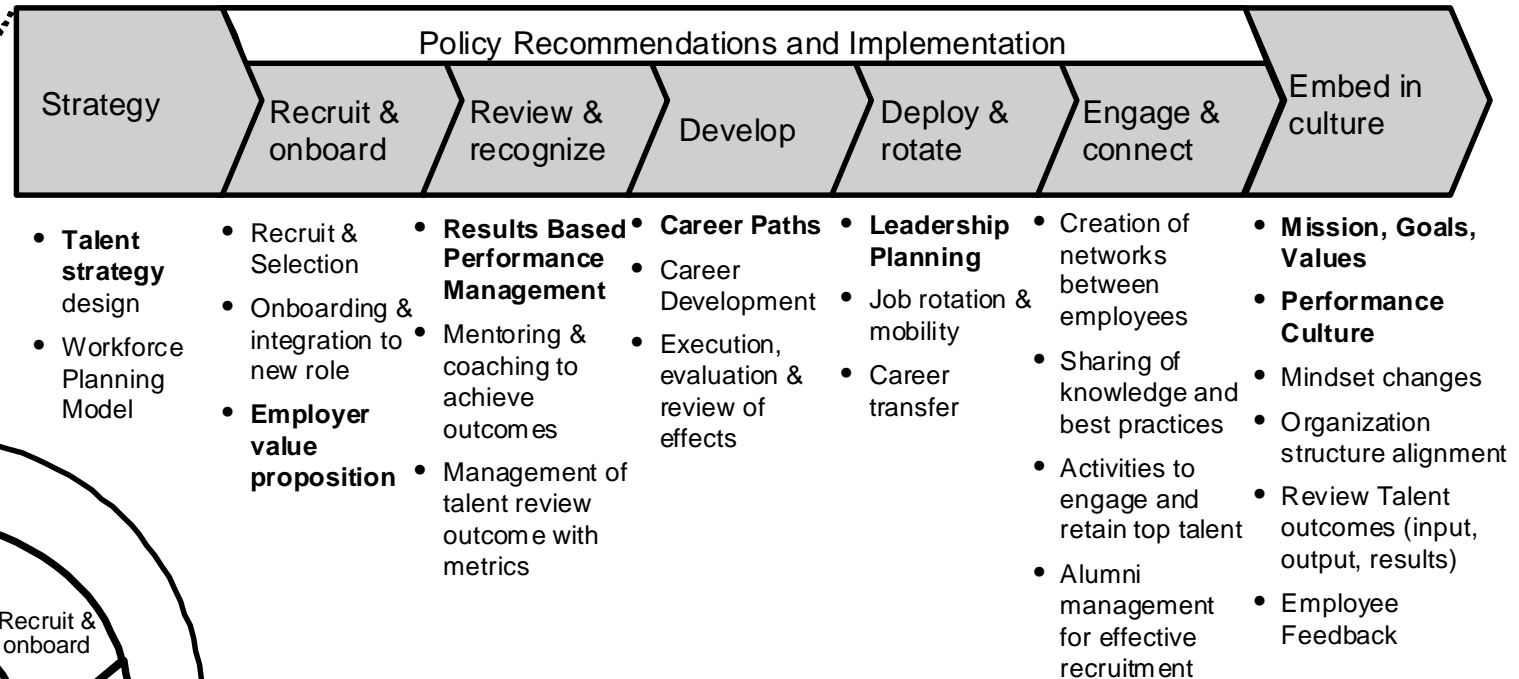
Diagnostic Findings

- No formal process for talent (HR) planning
- Unable to hire the best talent
- Current performance evaluation system ineffective
- No strategic employee development process
- No strategy for talent to gain cross organizational knowledge

Improved Human Resource Management

Improved Human Resource Mgmt

TALENT MANAGEMENT



Accomplishments:

- Completed Assessment of Current Personnel Practices and Developed Recommendations
- Designed and implemented a **rigorous performance review** process tied to performance metrics
- Trained Senior Leadership on new Performance Management System
- Designed process for **leadership planning**
- Made high level recommendations on **employee recruitment, development and retention**

Improved Human Resource Management

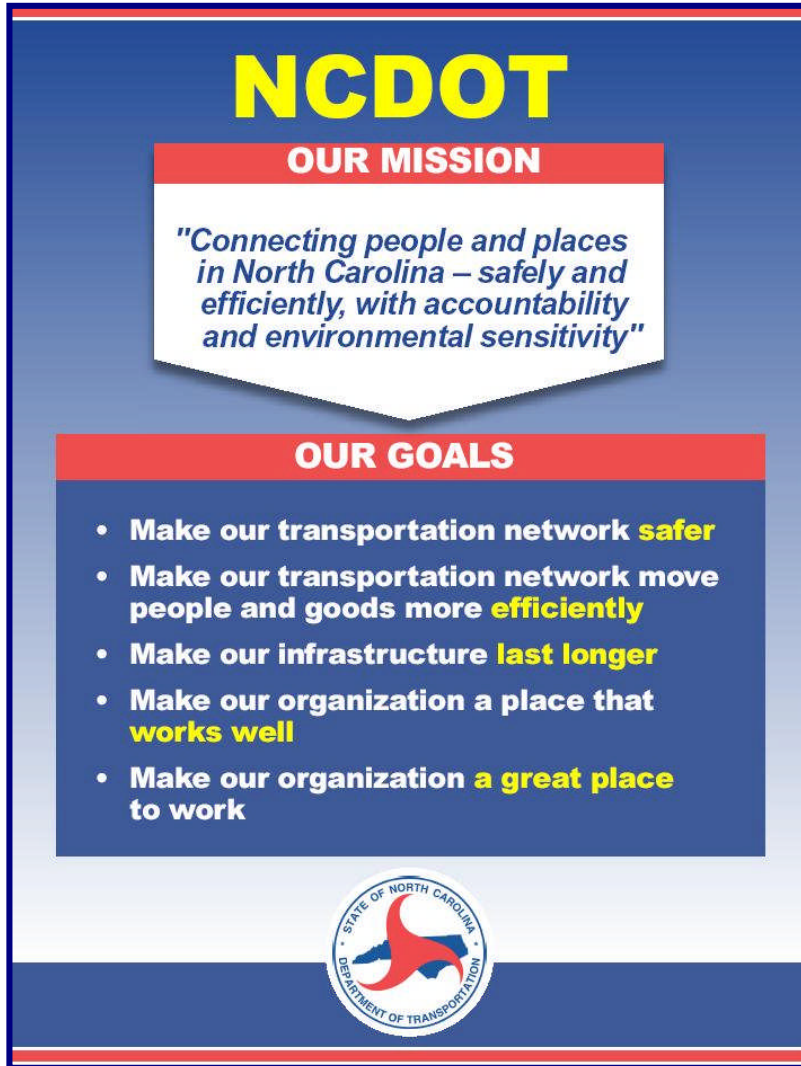
Improved Human Resource Mgmt



... the *right people* with the *right set of competencies* in the *right jobs* at the *right time* to enable the organization to accomplish its mission.



It all comes down to...




NCDOT

OUR MISSION

"Connecting people and places in North Carolina – safely and efficiently, with accountability and environmental sensitivity"

OUR GOALS

- Make our transportation network **safer**
- Make our transportation network move people and goods more **efficiently**
- Make our infrastructure **last longer**
- Make our organization a place that **works well**
- Make our organization **a great place to work**



- Working Together for a Common Purpose
- Planning and Prioritizing our Work
- Delivering our Projects & Programs More Efficiently
- Measuring Our Performance
- Developing Our Employees
- Fulfilling our role of

“Connecting People and Places in North Carolina”